

$^{21}\text{Ne}(n,\gamma)$ E=thermal 1971Be34,1986Pr05

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 127, 69(2015)	1-Apr-2015

Based on the compilation of Reedy and Frankel (2002Re13). The data are probably incomplete.

Other references: 1977Ri14, 1970Se14, 1968Jo09.

1971Be34: $^{21}\text{Ne}(n,\gamma)$, E=thermal; measured E_γ , I_γ .

1986Pr05: 99.99% pure natural target of neon gas, E=thermal; measured E_γ , I_γ using. Pair spectrometer.

 ^{22}Ne Levels

E(level) [†]	J^π [†]	Comments
0.0	0 ⁺	
1274.537 7	2 ⁺	
3357.2 5	4 ⁺	
4456.2 9	2 ⁺	
5523.3 6	(4) ⁺	
5910.1 9	3 ⁻	
6345.1 10	4 ⁺	
(10364.26 4)	(2) ⁺	E(level), J^π : Level energy from $S_n(^{22}\text{Ne})$ in 2012Wa38 and J^π from 2006MuZX.

[†] From Adopted Levels, except otherwise noted.

 $\gamma(^{22}\text{Ne})$

E_γ [†]	I_γ ^{@&}	E_i (level)	J_i^π	E_f	J_f^π
1274.537 7	100 10	1274.537	2 ⁺	0.0	0 ⁺
2082.6 5	61 10	3357.2	4 ⁺	1274.537	2 ⁺
2166.1 5	46 12	5523.3	(4) ⁺	3357.2	4 ⁺
2987.7 9	47 12	6345.1	4 ⁺	3357.2	4 ⁺
3181.4	26 9	4456.2	2 ⁺	1274.537	2 ⁺
4018.8 [#]	50 8	(10364.26)	(2) ⁺	6345.1	4 ⁺
4635.0	23 9	5910.1	3 ⁻	1274.537	2 ⁺
4840.4 [#]	21 8	(10364.26)	(2) ⁺	5523.3	(4) ⁺
9087.79 [‡] 25	16 8	(10364.26)	(2) ⁺	1274.537	2 ⁺

[†] From Adopted Gammas, except otherwise noted.

[‡] From 1986Pr05.

[#] From level energy differences, recoil energy subtracted.

[@] From 1971Be34, except otherwise noted. Uncertainty estimated by evaluator (2005Fi16).




[&] Intensity per 100 neutron captures.

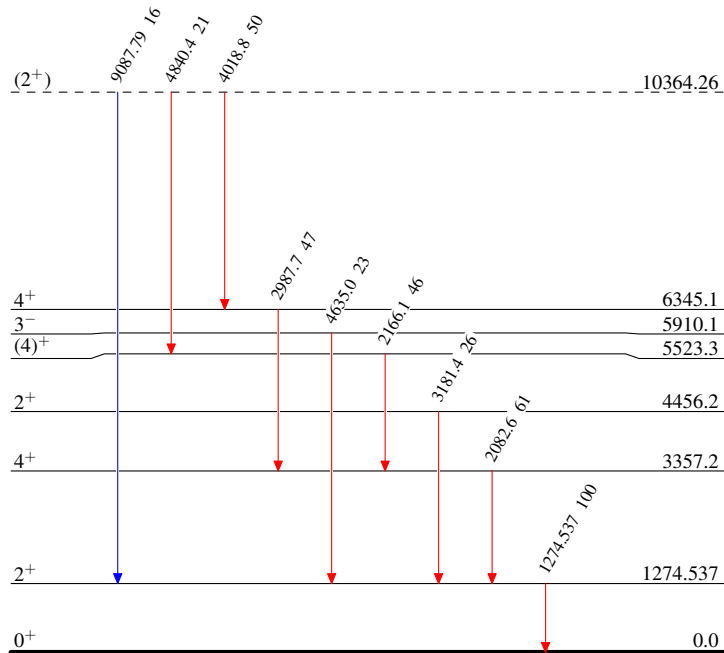
$^{21}\text{Ne}(n,\gamma) \text{E=thermal}$ 1971Be34,1986Pr05

Level Scheme

Intensities: Relative I_γ

Legend

-  $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
-  $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
-  $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

 $^{22}_{10}\text{Ne}_{12}$